

feedback) and input from the user **202** can be received in any form, including acoustic, speech, or tactile input. In addition, a computer can interact with the user **202** by sending documents to and receiving documents from a device that is used by the user **202** (for example, by sending web pages to a web browser on the user's user **202** device in response to requests received from the web browser).

[0102] Embodiments of the subject matter described in this specification can be implemented in a computing system that includes a back-end component (e.g., as a data server), a middleware component (e.g., an application server), or a front-end component (e.g., the user **202** computer having a graphical user **202** interface or a Web browser through which the user **202** can interact with an implementation of the subject matter described in this specification), or any combination of one or more such back-end, middleware, or front-end components. The components of the system can be interconnected by any form or medium of digital data communication (e.g., a communication network). Examples of communication networks include a local area network ("LAN") and a wide area network ("WAN"), an inter-network (e.g., the Internet), and peer-to-peer networks (e.g., ad hoc peer-to-peer networks).

[0103] The computing system can include user **202**s and servers. The user **202** and server are generally remote from each other and typically interact through a communication network. The relationship of user **202** and server arises by virtue of computer programs running on the respective computers and having the user **202**-server relationship to each other. In some embodiments, a server transmits data (e.g., an HTML page) to the user **202** device (e.g., for purposes of displaying data to and receiving user **202** input from the user **202** interacting with the user **202** device). Data generated at the user **202** device (e.g., a result of the user **202** interaction) can be received from the user **202** device at the server.

[0104] While this specification contains many specific implementation details, these should not be construed as limitations on the scope of any inventions or of what may be claimed, but rather as descriptions of features specific to particular embodiments of particular inventions. Certain features that are described in this specification in the context of separate embodiments can also be implemented in combination in a single embodiment. Conversely, various features that are described in the context of a single embodiment can also be implemented in multiple embodiments separately or in any suitable subcombination. Moreover, although features may be described above as acting in certain combinations and even initially claimed as such, one or more features from a claimed combination can, in some cases, be excised from the combination, and the claimed combination may be directed to a sub combination or variation of a subcombination.

[0105] Similarly, while operations are depicted in the drawings in a particular order, this should not be understood as requiring that such operations be performed in the particular order shown or in sequential order, or that all illustrated operations be performed, to achieve desirable results. In certain circumstances, multitasking and parallel processing may be advantageous. Moreover, the separation of various system components in the embodiments described above should not be understood as requiring such separation in all embodiments, and it should be understood that the described program components and systems can generally

be integrated together in a single software product or packaged into multiple software products.

[0106] Thus, particular embodiments of the subject matter have been described. Other embodiments are within the scope of the following claims. In some cases, the actions recited in the claims can be performed in a different order and still achieve desirable results. In addition, the processes depicted in the accompanying figures do not necessarily require the particular order shown, or sequential order, to achieve desirable results. In certain implementations, multitasking and parallel processing may be advantageous.

What is claimed is:

1. A system comprising:
 - a capture sensor; and
 - a computing device coupled to the capture sensor, the computer comprising one or more processors a computer-readable medium coupled to the at least one computer having instructions stored thereon which, when executed by the one or more processors, cause the computing device to perform operations comprising:
 - receiving, from a capture sensor, information indicative of the state of the face of the user;
 - determining that the user is performing one of a pre-determined set of facial movements based on the information;
 - determining an input command based the determined facial movement; and
 - executing the input command on the computing device.
2. The system of claim 1, wherein the operations further comprise locating a cursor on a user interface of the computing device based on a position of a chin or a nose of the user.
3. The system of claim 2, wherein the position of the chin or the nose is determined relative to another facial feature of the user.
4. The system of claim 2, wherein the operations further comprise causing a cursor to move based on the movement of the chin or nose of the user.
5. The system of claim 1, wherein the facial movement include at least one of inflating a cheek of the user, sticking out of a tongue of the user, pursing lips of the user, rubbing the lips together, a lipstick pose, a kiss pose, smiling, raising eyebrows, and expanding corners of the lips.
6. The system of claim 1, wherein inflating the cheek of the user causes the computing device to execute to a mouse click input command.
7. The system of claim 6, wherein determining the input command comprises selecting between a click input command and a double click input command based on a timing and a repetition of the inflating of the cheek.
8. The system of claim 6, wherein determining the input command comprises selecting between a left click input command and a right click input command based on which cheek the user inflates.
9. The system of claim 1, wherein sticking out of a tongue of the user causes the computing device to execute to a scroll input command.
10. The system of claim 9, wherein the direction of the scroll command is based on the direction of the tongue.
11. The system of claim 1, wherein pursing the lips causes the computing device to execute to a zoom in command.
12. The system of claim 1, wherein stretching the lips causes the computing device to execute to a zoom out command.